Summary of Powertech Comments

Summary Statements	Specific Comments
NRC requirements are adequate Powertech believes the NRC requirements for monitoring and GW restoration adequately protect USDWs outside the AE boundary, therefore, duplicative requirements for protection of USDWs in the UIC permit are unnecessary.	• NRC requirements provide full protection against transport of contaminants outside the AE boundary. The Revised Draft Class III Permit offers no additional protections beyond those already imposed by NRC in the approved NRC license. As stated in Appendix B of the FSEIS for the Dewey-Burdock Project, "The staff will not approve an ACL if it will affect any adjacent USDWs" (See Exhibit 008 at p. B-3 of Powertech's Original EPA Letter). • ~~d~~Duplicative EPA regulations are completely unnecessary.
EPA requirements are not justified Powertech stated that the EPA has not provided any scientific data justifying the need for the monitoring requirements demonstrating ISR contaminants will not cross the downgradient AE Boundary. There is no evidence a USDW has been impacted by ISR operations. An NRC study has stated ISR injection zone fluids have never been found to have migrated into a USDW.	• EPA has not offered a scientific or factual justification for the new requirements. • The EPA offers no evidence that impacts have occurred at other ISR facilities as a basis for the proposed requirements. • For the FSEIS, at no time did the EPA comment that the groundwater protection measures required by the NRC were insufficient to protect groundwater outside of the exempted aquifer. • An NRC study showed that there has never been a migration of ISR ore body fluids to adjacent, non-exempt aquifers, and EPA's speculation that "the lack of data does not demonstrate that no contamination is occurring" runs contrary to the NRC conclusions and is unlawful because "assumptions are not a proper substitute for the findings of a significant risk of harm required by the Act"-Supreme Court. • The only justification offered by EPA in conjunction with such requirements is 40 CFR Part 192, but this was withdrawn. On withdrawal, EPA stated that it had serious concerns about its authorities under UMTRCA and that it believes a national rulemaking is no longer necessary because existing regulations are sufficient.
Reference to Part 192 Powertech thought the UIC permit requirements were based the withdrawn proposed updates to the 40 CFR part 192 regulations, rather than UIC regulations requiring protection of USDWs. Because the EPA withdrew the proposed part 192 regulations, Powertech does not think we have regulatory authority for the Class III permit requirements that duplicate or surpass NRC requirements for the protection of USDWs.	• Supporting documents for the geochemical model reference the no-longer applicable 2017 permit and the withdrawn Part 192 rulemaking. • Part 192 regulations don't exist. Therefore, the 44 constituents in Table 8 should be made consistent with the 36 constituents required by NRC.
Duplicative requirements	• The Revised Draft Class III Permit continues to contain a number of requirements that are duplicative of or inconsistent with NRC requirements.

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EPA does not have authority	• EPA does not have authority for proposing duplicative and expansive requirements for areas already regulated by NRC, and duplicative EPA regulations are completely unnecessary. • EPA does not have the authority for proposing duplicative and in many cases expansive requirements for areas already regulated by NRC. Specific examples are provided in the comment letter.
Inconsistency with State-Issued ISR permits Powertech stated that the Class III permit requirements for demonstrating USDW protection were inconsistent with requirements in State-issued ISR permits. Powertech would like the EPA to make the Class III permit requirements more equivalent to the State Primacy program ISR permits. Powertech is concerned the EPA monitoring requirements for demonstrating protection of USDWs will give them an economic disadvantage compared to other ISR companies.	• Powertech wants to be treated equitably, and EPA should follow lead of NRC. • The revised permit is somewhat more consistent with those for other uranium ISR operations in the USA, but it includes unprecedented and unwarranted new requirements and are not consistent with permits for similar ISR operations within Region 8. • The unique requirements put Powertech at a disadvantage compared to other companies. • The geochemical modeling requirements are particularly unprecedented and unwarranted. • EPA's geochemical modeling requirements far exceed industry standards and is inconsistent with other sites, the original proposed alternative, and NRC requirements • Powertech remains unaware of any other Class III permits for uranium ISR operations in the USA, including Region 8, that require mandatory, expansive geochemical modeling proposed in the CADMUS documents and Part IV of the Revised Draft Class III Permit.
Geochemical Modeling Although Powertech proposed the use of geochemical modeling to replace post-restoration groundwater monitoring requirements proposed in the first draft Class III permit, the requirements in the second draft permit are more prescriptive than Powertech expected to see. In their comments on the second draft permit, Powertech provided additional information on the extent of modeling they expected to conduct, consisting of one model representing the four wellfields in Dewey area and one model representing the 14 wellfields in the Burdock area. They expected to analyze the reactive transport of only one or two ISR contaminants. Powertech stated that some of the geochemical modeling requirements were too	• Powertech acknowledges that it proposed geochemical modeling, but the scope of the permit requirements far exceed the proposal. • Powertech envisioned two models, one for Dewey and one for Burdock, consistent with NRC ACL regulations. • The proposed modeling was just one for the Dewey area and one for the Burdock area and only for 1 or 2 elements of concern. • If EPA insists on modeling, then it should be consistent with the proposal. • The geochemical modeling requirements are particularly unprecedented and unwarranted. • The geochemical modeling requirements are exhaustive and exceed current NRC requirements. • The EPA would require Powertech to do advance model "iterations" and collect potentially irrelevant site-specific geochemical data to determine the geochemical transport properties for constituents, which following groundwater restoration and stability phases, may meet the standard of being protective of human health and the environment. • Many geochemical modeling requirements are vague and unspecified to the extent that EPA could implement actual requirements after permit issuance. • It is unclear what Powertech needs to achieve in order to obtain EPA approval, and enables the EPA to request additional analysis and data regardless of any NRC approvals. • It also is unclear what actions EPA will take if it finds the model insufficient. • Powertech requests that the EPA remove the exhaustive geochemical modeling requirements as well as address the other requests made by Powertech with respect to the Class III Permit.

prescriptive, while others were too vague, for them to comply with. Powertech was also unclear about some of the requirements for development of the site conceptual model intended to support geochemical model.	• Powertech requests that the permit be updated to reflect that no geochemical modeling would be required for constituents that meet the Commission-approved background or an MCL. • The permit would require an iterative geochemical modeling effort following each round of sample data collection during groundwater restoration and stability for 44 parameters. Given that there are 14 wellfields and assuming quarterly sampling over a 2-year period for restoration and stability, this would equate to 112 geochemical models for just one parameter. • If this were required for all metals or radionuclides, the number of geochemical models would be 2,352. The suggested approach is completely impractical. • Also, it is unclear if the CSM represents a separate preliminary geochemical model because the permit states that development of alternative CSMs may be required if unresolved data gaps are identified. Updating the CSM quarterly with new information expands the scope many times over. • Powertech requests that, if any modeling is required, only one be required for each major wellfield and limited to specific analytes.
Cadmus Documents Powertech was concerned that the reference documents developed by the contractor to assist the EPA in developing the permit requirements for the site conceptual model and geochemical modeling were also requirements they would need to comply with under the Class III permit.	• The extensive requirements described in the Cadmus documents would be cost prohibitive, requiring full-time modeling for more than a decade. • Powertech requests removal of all reference to the Cadmus documents and to make the requirements consistent with NRC and the proposed modeling. • The Cadmus documents fail to recognize current standards and regulations for restoration. • The five Cadmus documents and permit don't specify data-collection standards or closure requirements for the model. • The Cadmus documents and permit impose different modeling timeframes and are inconsistent with Powertech's proposal and NRC's requirements.